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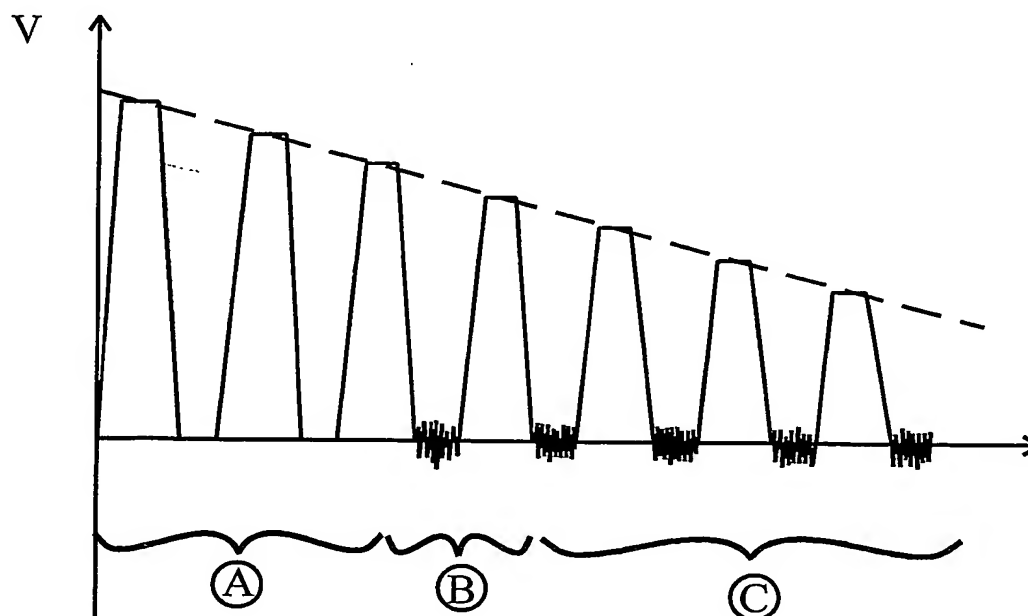
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(54) Title: **WELDING QUALITY CONTROL**

(57) Abstract: Apparatus and method for controlling weld conditions during welding by identifying a transition (B) between a first mode of operation (A) during which no spatter is produced, and a second mode of operation during which a minimal amount of spatter is produced; and adjusting a power supply voltage (V_s) whereby welding occurs under conditions associated with said transition (B); and whereby said step of identifying said transition comprises identifying near zero voltage fluctuations in said power supply voltage (V_s).



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